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tube, a balloon membrane, a tip, and a gas lumen insert, said catheter tube comprising a gas lumen disposed within an outer surface of the catheter tube and extending the length of the catheter tube, a proximal end of the balloon membrane is connected to a distal end of the catheter tube, a distal end of the balloon membrane is connected to the tip, the gas lumen insert comprising a removable elongate body at least partially disposed within the gas lumen, further comprising a coil and a connector, said connector being connected to a proximal end of the catheter and having a gas lumen port and an inner lumen port, said gas lumen port communicating with said gas lumen and said inner lumen port communicating with said inner lumen, said gas lumen port being connected to a distal end of an extracorporeal tube, the gas lumen insert passing through said gas lumen port and said extracorporeal tubing, said coil being disposed in the extracorporeal tubing between an inner surface of the extracorporeal tubing and an outer surface of the gas lumen insert.

Add new claim 24 which is the combination of old claim 7 in conjunction with old claim 2

B
A percutaneously insertable intra-aortic balloon catheter comprising a catheter tube, a balloon membrane, a tip, and a gas lumen insert, said catheter tube comprising an inner lumen and a gas lumen disposed within an outer surface of the catheter tube and extending the length of the catheter tube, a proximal end of the balloon membrane is connected to a distal end of the catheter tube, a distal end of the balloon membrane is connected to the tip, the gas lumen insert comprising a removable elongate body at least partially disposed within the gas lumen, further comprising a coil and a connector, said connector being connected to a proximal end of the catheter and having a gas lumen port and an inner lumen port, said gas lumen port communicating with said gas lumen and said inner lumen port communicating with said inner lumen, said gas lumen port being connected to a distal end of an extracorporeal tube, the gas lumen insert passing through said gas lumen port and said extracorporeal tubing, said coil being disposed in the extracorporeal tubing between an inner surface of the extracorporeal tubing and an outer surface of the gas lumen insert.

Add new claim 25 which is the combination of old claim 7 in conjunction with old claim 3

A percutaneously insertable intra-aortic balloon catheter comprising a catheter tube, a balloon membrane, a tip, and a gas lumen insert, said catheter tube comprising an inner tube portion, defining an inner lumen, and an outer tube portion, defining gas lumen, a distal portion of said inner tube portion extending beyond a distal end of the outer tube portion and being connected to a distal end of the balloon membrane and to the tip, the gas lumen insert comprising a removable elongated body at least partially disposed within the gas lumen, further comprising a coil and a connector, said connector being connected to a proximal end of the catheter and having a gas lumen port and an inner lumen port, said gas lumen port communicating with said gas lumen and said inner lumen port communicating with said inner lumen, said gas lumen port being connected to a distal end of an extracorporeal tube, the gas lumen insert passing through said gas lumen port and said extracorporeal tubing, said coil being disposed in the extracorporeal tubing between an inner surface of the extracorporeal tubing and an outer surface of the gas lumen insert.

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Add new claim 26 which is the combination of old claim 7 in conjunction with old claim 4

A percutaneously insertable intra-aortic balloon catheter comprising a catheter tube, a balloon membrane, an inner tube, a tip, and a gas lumen insert, said catheter tube comprising an inner tube portion and an outer tube portion defining a gas lumen, said inner tube being at least partially disposed within the outer tube portion and extending beyond a distal end of the outer tube portion and being connected to a distal end of the balloon membrane and to the tip, the gas lumen insert comprising a removable elongate body at least partially disposed within the gas lumen, further comprising a coil and a connector, said connector being connected to a proximal end of the catheter and having a gas lumen port and an inner lumen port, said gas lumen port communicating with said gas lumen and said inner lumen port communicating with said inner lumen, said gas lumen port being connected to a distal end of an extracorporeal tube, the gas lumen insert passing through said gas lumen port and said extracorporeal tubing, said coil being disposed in the extracorporeal tubing between an inner surface of the extracorporeal tubing and an outer surface of the gas lumen insert.

Add new claim 27 which is the combination of old claim 7 in conjunction with old claim 5

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A percutaneously insertable intra-aortic balloon catheter comprising an outer tube, an inner tube, a balloon membrane, a tip, and a gas lumen insert, said inner tube being disposed within the outer tube, a distal portion of said inner tube extending beyond a distal end of the outer tube and being connected to a distal end of the balloon membrane and the tip, the gas lumen insert comprising a removable elongate body at least partially disposed within the gas lumen, further comprising a coil and a connector, said connector being connected to a proximal end of the catheter and having a gas lumen port and an inner lumen port, said gas lumen port communicating with said gas lumen and said inner lumen port communicating with said inner lumen, said gas lumen port being connected to a distal end of an extracorporeal tube, the gas lumen insert passing through said gas lumen port and said extracorporeal tubing, said coil being disposed in the extracorporeal tubing between an inner surface of the extracorporeal tubing and an outer surface of the gas lumen insert.

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8. (amended) A percutaneously insertable intra-aortic balloon catheter comprising a catheter tube, a balloon membrane, a tip, and a gas lumen insert, said catheter tube comprising a gas lumen disposed within an outer surface of the catheter tube and extending the length of the catheter tube, a proximal end of the balloon membrane is connected to a distal end of the catheter tube, a distal end of the balloon membrane is connected to the tip, the gas lumen insert comprising a removable elongate body at least partially disposed within the gas lumen, further comprising a coil and a connector, said connector being connected to a proximal end of the catheter and having a gas lumen port and an inner lumen port, said gas lumen port communicating with said gas lumen and said inner lumen port communicating with said inner lumen, said gas lumen port being connected to a distal end of an extracorporeal tube, the gas lumen insert passing through said gas lumen port and said extracorporeal tubing, said coil being disposed in the extracorporeal tubing between an inner surface of the extracorporeal tubing and an outer surface of the gas lumen insert, said gas lumen insert terminating in a one-way valve, said extracorporeal tubing terminating in a connector for connection to said one-way valve.

Add new claim 28 which is the combination of old claim 8 in conjunction with old claim 2

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A percutaneously insertable intra-aortic balloon catheter comprising a catheter tube, a balloon membrane, a tip, and a gas lumen insert, said catheter tube comprising an inner lumen and a gas lumen disposed within an outer surface of the catheter tube and extending the length of the catheter tube, a proximal end of the balloon membrane is connected to a distal end of the catheter tube, a distal end of the balloon membrane is connected to the tip, the gas lumen insert comprising a removable elongate body at least partially disposed within the gas lumen, further comprising a coil and a connector, said connector being connected to a proximal end of the catheter and having a gas lumen port and an inner lumen port, said gas lumen port communicating with said gas lumen and said inner lumen port communicating with said inner lumen, said gas lumen port being connected to a distal end of an extracorporeal tube, the gas lumen insert passing through said gas lumen port and said extracorporeal tubing, said coil being disposed in the extracorporeal tubing between an inner surface of the extracorporeal tubing and an outer surface of the gas lumen insert, said gas lumen insert terminating in a one-way valve, said extracorporeal tubing terminating in a connector for connection to said one-way valve.

Add new claim 29 which is the combination of old claim 8 in conjunction with old claim 3

A percutaneously insertable intra-aortic balloon catheter comprising a catheter tube, a balloon membrane, a tip, and a gas lumen insert, said catheter tube comprising an inner tube portion, defining an inner lumen, and an outer tube portion, defining gas lumen, a distal portion of said inner tube portion extending beyond a distal end of the outer tube portion and being connected to a distal end of the balloon membrane and to the tip, the gas lumen insert comprising a removable elongated body at least partially disposed within the gas lumen, further comprising a coil and a connector, said connector being connected to a proximal end of the catheter and having a gas lumen port and an inner lumen port, said gas lumen port communicating with said gas lumen and said inner lumen port communicating with said inner lumen, said gas lumen port being connected to a distal end of an extracorporeal tube, the gas lumen insert passing through said gas lumen port and said extracorporeal tubing, said coil being disposed in the extracorporeal tubing

between an inner surface of the extracorporeal tubing and an outer surface of the gas lumen insert, said gas lumen insert terminating in a one-way valve, said extracorporeal tubing terminating in a connector for connection to said one-way valve.

Add new claim 30 which is the combination of old claim 8 in conjunction with old claim 4

B A percutaneously insertable intra-aortic balloon catheter comprising a catheter tube, a balloon membrane, an inner tube, a tip, and a gas lumen insert, said catheter tube comprising an inner tube portion and an outer tube portion defining a gas lumen, said inner tube being at least partially disposed within the outer tube portion and extending beyond a distal end of the outer tube portion and being connected to a distal end of the balloon membrane and to the tip, the gas lumen insert comprising a removable elongate body at least partially disposed within the gas lumen, further comprising a coil and a connector, said connector being connected to a proximal end of the catheter and having a gas lumen port and an inner lumen port, said gas lumen port communicating with said gas lumen and said inner lumen port communicating with said inner lumen, said gas lumen port being connected to a distal end of an extracorporeal tube, the gas lumen insert passing through said gas lumen port and said extracorporeal tubing, said coil being disposed in the extracorporeal tubing between an inner surface of the extracorporeal tubing and an outer surface of the gas lumen insert, said gas lumen insert terminating in a one-way valve, said extracorporeal tubing terminating in a connector for connection to said one-way valve.

Add new claim 31 which is the combination of old claim 8 in conjunction with old claim 5

A percutaneously insertable intra-aortic balloon catheter comprising an outer tube, an inner tube, a balloon membrane, a tip, and a gas lumen insert, said inner tube being disposed within the outer tube, a distal portion of said inner tube extending beyond a distal end of the outer tube and being connected to a distal end of the balloon membrane and the tip, the gas lumen insert comprising a removable elongate body at least partially disposed within the gas lumen, further comprising a coil and a connector, said connector being connected to a proximal end of the catheter and having a gas lumen port and an inner lumen port, said gas lumen port communicating

with said gas lumen and said inner lumen port communicating with said inner lumen, said gas lumen port being connected to a distal end of an extracorporeal tube, the gas lumen insert passing through said gas lumen port and said extracorporeal tubing, said coil being disposed in the extracorporeal tubing between an inner surface of the extracorporeal tubing and an outer surface of the gas lumen insert, said gas lumen insert terminating in a one-way valve, said extracorporeal tubing terminating in a connector for connection to said one-way valve.

9. (amended) A percutaneously insertable intra-aortic balloon catheter comprising a catheter tube, a balloon membrane, a tip, and a gas lumen insert, said catheter tube comprising an inner tube portion, defining an inner lumen, and an outer tube portion, defining gas lumen, a distal portion of said inner tube portion extending beyond a distal end of the outer tube portion and being connected to a distal end of the balloon membrane and to the tip, the gas lumen insert comprising a removable elongated body at least partially disposed within the gas lumen, wherein the distal portion of the inner tube portion is made from a different material than the portion of the inner tube portion disposed within an outer surface of the catheter.

10. (amended) A percutaneously insertable intra-aortic balloon catheter comprising a catheter tube, a balloon membrane, a tip, and a gas lumen insert, said catheter tube comprising an inner tube portion, defining an inner lumen, and an outer tube portion, defining gas lumen, a distal portion of said inner tube portion extending beyond a distal end of the outer tube portion and being connected to a distal end of the balloon membrane and to the tip, the gas lumen insert comprising a removable elongated body at least partially disposed within the gas lumen, wherein the distal portion of the inner tube portion is made from a different material than the portion of the inner tube portion disposed within an outer surface of the catheter, and wherein the distal portion of the inner tube portion and a distal end of the catheter are connected at a joint, the gas lumen insert extends beyond the distal end of the outer tube portion and overlaps the joint.

11. (amended) A percutaneously insertable intra-aortic balloon catheter comprising an outer tube, an inner tube, a balloon membrane, a tip, and a gas lumen insert, said inner tube being

disposed within the outer tube, a distal portion of said inner tube extending beyond a distal end of the outer tube and being connected to a distal end of the balloon membrane and the tip, the gas lumen insert comprising a removable elongate body at least partially disposed within the gas lumen, wherein the distal portion of the inner tube is made from a different material than the portion of the inner tube disposed within an outer surface of the catheter.

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12. (amended) A percutaneously insertable intra-aortic balloon catheter comprising an outer tube, an inner tube, a balloon membrane, a tip, and a gas lumen insert, said inner tube being disposed within the outer tube, a distal portion of said inner tube extending beyond a distal end of the outer tube and being connected to a distal end of the balloon membrane and the tip, the gas lumen insert comprising a removable elongate body at least partially disposed within the gas lumen, wherein the distal portion of the inner tube is made from a different material than the portion of the inner tube disposed within an outer surface of the catheter, and wherein the catheter are connected at a joint, the gas lumen insert extends beyond the distal end of the outer tube and overlaps the joint.
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15. (amended) A percutaneously insertable intra-aortic balloon catheter comprising a catheter tube, a balloon membrane, a tip, and a gas lumen insert, said catheter tube comprising an inner lumen and a gas lumen disposed within an outer surface of the catheter tube and extending the length of the catheter tube, a proximal end of the balloon membrane is connected to a distal end of the catheter tube, a distal end of the balloon membrane is connected to the tip, the gas lumen insert comprising a removable elongate body at least partially disposed within the gas lumen, wherein the catheter tube is at least partially made from polyurethane and the gas lumen insert is at least partially made from polyether block amide.
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Add new claim 32 which is the combination of old claim 15 in conjunction with old claim 3

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A percutaneously insertable intra-aortic balloon catheter comprising a catheter tube, a balloon membrane, a tip, and a gas lumen insert, said catheter tube comprising an inner tube